

Massachusetts Water Resources Commission

Meeting Minutes for November 13, 1997

Commission Members in Attendance:

Mark P. Smith	Designee, Secretary of Environmental Affairs
Jane Mead	Massachusetts Coastal Zone Management
Dave Terry	Department of Environmental Protection, attending for Arleen O'Donnell
Mike Gildesgame	Department of Environmental Management
Karen Pelto	Department of Fisheries, Wildlife, and Environmental Law Enforcement, attending for Mark Tisa
Richard Butler	Public Member
Bob Zimmerman	Public Member
Jeff Kapell	Public Member
Gary Clayton	Public Member

Others in Attendance:

Steve Asen	DEM/Office of Water Resources
Paul Wohler	Plymouth DPW Water Division
Richard Johnson	Amory Engineers, Duxbury, MA
Ellen Gugel	EOEA
Michele Drury	DEM, Office of Water Resources
Christian Krahforst	MCZM

Agenda Item #1: Executive Director's Report

Massachusetts Clean Water Council (MCWC) Conference Update: Mark P. Smith reported that 120 people have registered for the conference on Friday, November 14 with representation from water suppliers, wastewater treatment plant operators, environmental groups, and consultants. Conference topics include reviewing our progress over the last 25 years and looking forward to the next 25. Establishing a science and technology center and NPDES delegation will be among the topics.

City of Brockton: Smith and Michele Drury met with officials of the City of Brockton. Brockton has hired a new consultant to look at its three water supply options (Taunton river diversion, Bluestone desalinization plant, MWRA). This is an attempt by the city to take a fresh look at the situation with a new consultant. All three options present different issues: environmental groups are against the Taunton River diversion; the MWRA option involves an interbasin transfer; and the desalinization option (which also requires an interbasin transfer permit) needs additional work before its environmental and economic viability can be judged.

Lealdon Langley, Drury, and Smith met to discuss the legislation needed to establish a regional water supplier which would operate the desalinization plan. We have been asked by both Senator Pacheco's office and the proponents of the Bluestone project to provide some guidance on the

wording of proposed legislation. MWRA is the only similar model in the state, but is somewhat different from what Bluestone proponents propose.

Draft GEIR on Eutrophication and Aquatic Plant Management: This analysis is being developed by UMass on a contract of DEM and another agency. There is a citizens advisory committee and it is ready to finalize the draft for MEPA. The final meeting of the citizens advisory committee is in December and after which it will go to MEPA in February. After the citizens advisory committee finalization and prior to MEPA release, WRC members will have an opportunity to review it. As it is currently 640 pages, only the executive summary, table of contents, and recommendations will be provided to WRC members (full report available upon request). No sign-off is required by the WRC. The citizens' advisory committee is composed of agencies and environmental groups. The DEIR will have a wide review. A big issue in it is pesticides: their toxicity and public health, particularly with respect to the applicator. Another controversial issue was grass carp on which resolution was reached.

Watershed Initiative: Prospective basin team leaders were interviewed for the 20 positions. They are expected to be in place by the first of the year. The watershed manager position should be posted by the end of November.

Water Quantity Policy Retreat: Plans are shaping up. The two areas of focus are *instream flows* and *conservation*, particularly with regard to stressed basins. The idea is a half day retreat of WRC members and water supply experts to brainstorm ideas, frame the issues, and describe a work plan on how to protect and restore stressed basins. The need for a facilitator was discussed. Smith will fill this role.

Agenda Item #2: Vote: Adoption of the Minutes of October 9, 1997 Meeting

The minutes of the October 9, 1997 meeting were unanimously accepted without change.

Agenda Item #3: Vote: Plymouth's Water Needs Forecast

Steve Asen, DEM/Office of Water Resources
Paul Wohler, Plymouth DPW Water Division
Richard Johnson, Amory Engineers, Duxbury, MA

The Town of Plymouth is seeking acceptance of its new Water Use Forecasts by the Commission. Last month, a review of Plymouth's proposed needs forecast was presented for information, with a vote to be taken this month.

Steve Asen presented highlights:

Supply: Plymouth currently has two public wells in the Buzzards Bay watershed and eight in the South Coastal watershed. With current permits, water supply capacity is 4.15 mgd in the South Coastal watershed and .91 mgd in Buzzards Bay for a total of 5.06 mgd. The application seeks to increase the capacity of the South Coastal wells, but does not propose any changes in Buzzards Bay.

Demand:

- Base demand is 5.41 mgd (average of years 1993 through 1996). Base demand of 5.76 mgd is predicted for 2000 and is expected to reach 6.36 mgd by 2010.
- The town's population is currently growing 1,000 a year.
- The increase in demand is due to population increase:

1980 through 1990: +3% a year	actual
1990 through 1996: +1% a year	actual
1996 through 2000: +3% a year	projected
2000 through 2010: <+1% a year	projected
- Demand has been reduced by 1 mgd over the last few years.
- There is a high seasonal demand, due in large part to summer population.
- Water bans this year: only a voluntary ban since the end of July.

Water Conservation:

- The town is expected to be 100 percent metered by spring (the Edison plant, old jail, hospital, and trailer parks are still unmetered).
- Unaccounted for water has decreased from 37 percent to 19 percent.
- The town has adopted an increasing block rate structure.
- 6,000 school children have received water conservation kits.

Discussion and issues raised:

- The question of sewerage arose to get a picture of how much of the water supply is leaving the basin. Twenty-five percent of the town is sewerage, and there are no expansion plans since the sewer system is at capacity for its outfall permit and there are relatively few Title 5 problems in Plymouth. The Ocean Sanctuaries Act prevents sewer expansion because of the outfall permit, but an additional 1.75 mgd in land application will be treated at a new plant being built near the Eel River.
- A request was made to check population projections made five to ten years ago with today's actual population. The question about the projection methodology arose. DEM does not do the projections, but uses MAPC numbers at the time the permit is granted.
- One commission member asked if the town's growth management plans include stormwater management.
- A question about the sustainability of the aquifer was raised. A commission member requested that as part of any WMA permit review that a review be done of the study of the Plymouth/Carver aquifer that was produced by USGS.

Regarding demand vs. supply, today's vote only applies to the demand side and it implies nothing about what source, if any is available.

Dave Terry moved to accept the water use forecasts for Plymouth and Dick Butler seconded the motion. It passed unanimously.

Note: A suggestion arose that it would be helpful if the agencies prepared some materials or a presentation for WRC members on how the regulatory pieces fit together including the Water Management Act and the Interbasin Transfer Act. Additionally, background materials with this type of information for new WRC members would be appreciated. Smith agreed to have this presentation prepared for a future meeting.

Agenda Item #4: Presentation: Update of the 1991 Taunton River Basin Plan

Michele Drury, DEM/Office of Water Resources

History of basin plans: In 1987, DEM/OWR started producing basin plans. The plans looked at water supply, demand, and discharges, and set a minimum stream flow based on 95 percent flow duration curves and the sub-basin's hydrology. They included basic hydrological information and demand projections to be used in the Water Management Act process. Approximately six full basin plans were completed in the late 1980s and early 1990s including the Taunton River Basin Plan. Producing basin plans is a time-consuming process. Because of DEP's regulatory need to issue Water Management permits on a faster time scale, basin plans were soon shortened to abbreviated plans.

Full plans are now being done again (the Housatonic will be out soon). Because of staff loss since 1987 and the comprehensive nature of the basin plans, only one a year can be reasonably expected.

Highlights of the Taunton River basin plan update: The original Taunton River Basin Plan demand projections were made prior to **current** methodology. Non-residential, residential, and unaccounted-for water were not disaggregated. Table I in the updated plan shows a general decline in actual water use. It was 75 mgd then and is now 65 mgd, a reduction in actual water use. The economic recession of the early 1990s and aggressive water conservation by Brockton, New Bedford, and other towns explain the decrease. A slight increase is projected between now and 2020 from 65 mgd to 79 mgd (population growth due to rail line).

The main question the updated basin plan must answer is "How has the available yield in sub-basins changed over time?" Two basins show a greater yield, there are several with less, and one had some yield but does not now and is identified as stressed.

These basin plans and findings are not plugged into the regulations/legalities of the WMA. They are mainly used for local decision-making. Consultants call for this type of information.

Discussion and issues raised:

- Mark Smith asked to see the percentage change of yield in each of the sub-basins. This will be in the final basin plan.
- Karen Pelto remarked that the Nemasket sub-basin has been identified as biologically stressed. The updated basin plan reports no change since 1991 in yield. Karen's concerns are reversing pond temperature, low dissolved oxygen, and low flows. Drury explained that the basin plans were originally a water supply based analysis and that the aquifer strength and fisheries needs may be different or overlap. No conclusion was reached.

Meeting Adjourned

Meeting minutes approved 12/11/97